

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Original) A fatigue evaluation apparatus, comprising:  
measuring means for measuring a concentration of amino acid in a body fluid; and  
evaluating means for evaluating a degree of fatigue by using as an index a measurement result obtained by the measuring means.
2. (Original) The fatigue evaluation apparatus according to Claim 1, wherein when the measurement result shows that the concentration of the amino acid is lower than a predetermined value, the evaluating means determines that the degree of fatigue is high.
3. (Currently Amended) The fatigue evaluation apparatus according to Claim 1 ~~—or 2,~~  
wherein when the measurement result shows that the concentration of the amino acid is lower than the predetermined value, the evaluating means determines that there is an overwork state due to accumulation of physiological acute fatigue developed in daily life.
4. (Currently Amended) The fatigue evaluation apparatus according to ~~any one of~~  
Claim[[s]] 1 ~~to 3~~, wherein the body fluid is at least one type of body fluid selected from a group consisting of: blood, saliva, cerebrospinal fluid, and urine, all of which have been separated from an individual organism.
5. (Currently Amended) The fatigue evaluation apparatus according to ~~any one of~~  
Claim[[s]] 1 ~~to 4~~, wherein the amino acid is at least one type of amino acid selected from a group consisting of: total amino acids, branched-chain amino acids, aromatic amino acids, cysteine, methionine, lysine, arginine, and histidine.
6. (Currently Amended) The fatigue evaluation apparatus according to ~~any one of~~  
Claim[[s]] 1 ~~to 5~~, wherein a target for evaluation of the degree of fatigue is physiological acute fatigue developed ~~in daily life, particularly substantially from~~ mental fatigue.
7. (Currently Amended) The fatigue evaluation apparatus according to ~~any one of~~  
Claim[[s]] 1 ~~to 6~~, wherein:  
the measuring means measures respective concentrations of the amino acid in the body fluid

*Application No.: NOT YET ASSIGNED*

before and after a subject is subjected to fatigue loading , and

the evaluating means evaluates the degree of fatigue by using as an index a change in concentration of the amino acid in the body fluid between before and after the fatigue loading, based on the measurement result obtained by the measuring means.

8. (Currently Amended) A fatigue evaluation method for evaluating a degree of fatigue in an organism, comprising:

[[by]] using [[as]] an index indicative of a concentration of amino acid in a body fluid from the organism.

9. (Currently Amended) The fatigue evaluation method according to Claim 8, wherein when the index is indicative of the concentration of the amino acid [[is]] being low, it is determined that the degree of fatigue is high.

10. (Currently Amended) The fatigue evaluation method according to Claim 8 ~~-or 9,~~ wherein when the index is indicative of the concentration of the amino acid [[is]] being low, it is determined that there is an overwork state due to accumulation of physiological acute fatigue developed in daily life.

11. (Currently Amended) The fatigue evaluation method according to ~~any one of~~ Claim[[s]] 8 ~~to 10~~, wherein the body fluid is at least one type of body fluid selected from: blood, saliva, cerebrospinal fluid, and urine.

12. (Currently Amended) The fatigue evaluation method according to ~~any one of~~ Claim[[s]] 8 ~~to 11~~, wherein the amino acid is at least one type of amino acid selected from: total amino acids, branched-chain amino acids, aromatic amino acids, cysteine, methionine, lysine, arginine, and histidine.

13. (Currently Amended) The fatigue evaluation method according to ~~any one of~~ Claim[[s]] 8 ~~to 12~~, wherein said index is for identifying a target for the degree of fatigue is physiological acute fatigue developed substantially from in daily life, particularly mental fatigue.

14. (Currently Amended) The fatigue evaluation method according to Claim[[s]] 8, wherein the degree of fatigue is evaluated by using as an index a change in concentration of the amino acid in the body fluid of the organism between before and after fatigue loading.

*Application No.: NOT YET ASSIGNED*

before and after a subject is subjected to fatigue loading , and

the evaluating means evaluates the degree of fatigue by using as an index a change in concentration of the amino acid in the body fluid between before and after the fatigue loading, based on the measurement result obtained by the measuring means.

8. (Currently Amended) A fatigue evaluation method for evaluating a degree of fatigue in an organism, comprising:

[[by]] using [[as]] an index indicative of a concentration of amino acid in a body fluid from the organism.

9. (Currently Amended) The fatigue evaluation method according to Claim 8, wherein when the index is indicative of the concentration of the amino acid [[is]] being low, it is determined that the degree of fatigue is high.

10. (Currently Amended) The fatigue evaluation method according to Claim 8 ~~-or 9,~~ wherein when the index is indicative of the concentration of the amino acid [[is]] being low, it is determined that there is an overwork state due to accumulation of physiological acute fatigue developed ~~in daily life.~~

11. (Currently Amended) The fatigue evaluation method according to ~~any one of~~ Claim[[s]] 8 ~~to 10~~, wherein the body fluid is at least one type of body fluid selected from: blood, saliva, cerebrospinal fluid, and urine.

12. (Currently Amended) The fatigue evaluation method according to ~~any one of~~ Claim[[s]] 8 ~~to 11~~, wherein the amino acid is at least one type of amino acid selected from : total amino acids, branched-chain amino acids, aromatic amino acids, cysteine, methionine, lysine, arginine, and histidine.

13. (Currently Amended) The fatigue evaluation method according to ~~any one of~~ Claim[[s]] 8 ~~to 12~~, wherein said index is for identifying a target for the degree of fatigue is physiological acute fatigue developed substantially from in daily life, particularly mental fatigue.

14. (Currently Amended) The fatigue evaluation method according to Claim[[s]] 8, wherein the degree of fatigue is evaluated by using as an index a change in concentration of the amino acid in the body fluid of the organism between before and after fatigue loading.

*Application No.: NOT YET ASSIGNED*

15. (Currently Amended) The fatigue evaluation method of Claim 8, further including providing [[A]] a fatigue evaluation kit for carrying out [[a]] the fatigue evaluation method according to any one of Claims 8 to 14.

16. (Currently Amended) A method for measuring an anti-fatigue effect of an anti-fatigue substance on a subject, the method comprising:

determining a first measurement indicative of a first concentration of amino acid in the body fluid of the subject;

determining a second measurement indicative of a second concentration of amino acid in the body fluid of the subject after the subject is subjected to the fatigue loading;

administering the anti-fatigue substance to a subject in a fatigue state; and

measuring the anti-fatigue effect of the anti-fatigue substance by using a result indicative of a discrepancy between the first and second measurements using the fatigue evaluation apparatus, the fatigue evaluation method, or the fatigue evaluation kit according to any one of Claims 1 to 15.

17. (Currently Amended) A method for evaluating an anti-fatigue effect of an anti-fatigue substance, the method comprising, the method comprising the processes of:

administering the anti-fatigue substance to a subject in a fatigue state;

determining whether or not the subject has recovered from fatigue, by using the fatigue evaluation apparatus, measuring a concentration of amino acid in a body fluid of the subject the fatigue evaluation method, or the fatigue evaluation kit according to any one of Claims 1 to 15; and

evaluating the anti-fatigue effect of the anti-fatigue substance by using a concentration measurement resulting from said step of measuring as an indicator of index a degree to which the subject has recovered from fatigue.

18. (Currently Amended) An anti-fatigue effect evaluation system, comprising:

a first fatigue evaluation apparatus according to any one of Claims 1 to 7 for evaluating a degree of fatigue of a subject to whom an anti-fatigue substance has been administered; and

a second fatigue evaluation apparatus for evaluating an anti-fatigue effect of the anti-fatigue substance by using as an index a degree to which the subject has recovered from fatigue, based on an evaluation result obtained by the first fatigue evaluation apparatus;

*Application No.: NOT YET ASSIGNED*

wherein at least one of the first and second fatigue evaluation apparatuses measure a concentration of at least one amino acid in fluid from the subject;

wherein the fluid includes one of: blood, saliva, cerebrospinal fluid, and urine; and

wherein the at least one amino acid is selected from a group consisting of: total amino acids, branched-chain amino acids, aromatic amino acids, cysteine, methionine, lysine, arginine, and histidine.

19. (Currently Amended) A method for screening a candidate substance for an anti-fatigue substance, the method comprising the processes of:

administering a test article substance to a model animal in a fatigue state;

determining whether or not the model animal has recovered from fatigue, by measuring a concentration of amino acid in a body fluid of the model animal using the fatigue evaluation apparatus, the fatigue evaluation method, or the fatigue evaluation kit according to any one of Claims 1 to 15; and determining that the test article substance is includes a candidate substance for an anti-fatigue substance, by using as an index the model animal's recovery from fatigue.